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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,491	09/29/2003	Chun-Ching Wang	TAIW 170	8471

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EXAMINER

NORTON, JENNIFER L

ART UNIT PAPER NUMBER

2121

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/671,491	WANG, CHUN-CHING	
	Examiner	Art Unit	
	Jennifer L. Norton	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a 2nd Non-Final Office Action in response to the Amendment received on October 4, 2005. Claims 1-8 are pending.

Claim Rejections - 35 USC § 112

2. The amendments to Claim 2 were received on October 4, 2005. The rejection to Claim 2 is withdrawn.

Priority

3. It is noted that this application appears to claim subject matter disclosed in prior Application No.: 092119740, filed July 18 2003. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November

29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its

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inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Claim Objections

4. Claim 7 is objected to because of the following informalities:

Claim 7, line 2 include the grammatical error, "a internal instructions".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1,3,4,7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No.: 4,521,871 (hereinafter Galdun).

7. As per claim 1, Galdun discloses an auxiliary memory device for an automation controller, comprising:

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a connecting unit (Fig. 1A, element 4B), which is connected to the automation controller (Fig. 1A and col. 1, lines 66-68 and col. 2, lines 1-2) for transmitting and receiving a specific datum (col. 2, lines 12-17 and col. 25, lines 4-5);

a switching unit (Fig. 7, element 804), which is connected to the connecting unit for switching the transmission directions of the specific datum (col. 2, lines 12-17 and col. 25, lines 42-48);

a storage unit (Fig. 1A, element 2B), which contains at least one memory element (Fig. 1A, element 623B and col. 4, lines 64-68) and is connected to the switching unit for storing the specific datum (via Fig. 7, element 400 coupled to Fig. 1A, element 1B and col. 25, lines 29-34); and

a load unit, which contains a plurality of load components connecting to a work power supply for receiving the work power and generating a load (col. 30, lines 5-9).

8. As per claim 3, Galdun discloses the auxiliary memory device transmits the specific datum in the storage unit to the automation controller when the switching unit is closed (col. 2, lines 12-17 and col. 30, lines 29-31 and 39-42).

9. As per claim 4, Galdun discloses the auxiliary memory device receives the specific datum in the storage unit from the automation controller when the switching unit is open (col. 2, lines 12-17 and col. 30, lines 29-31 and 35-38).

10. As per claim 7, Galdun discloses an auxiliary memory device for an automation controller having an internal memory (Fig. 1A, element 2B and col. 2, lines 11-14) and a processing unit (Fig. 1B, element 5) for processing according to a internal instructions stored in the internal memory (col. 2, lines 3-5), comprising:

a storage unit (Fig. 1A, element 2B), having at least one memory element (Fig. 1A, element 623B and col. 4, lines 64-68) for storing specific data including updates of, the internal instructions stored in the internal memory of the automation controller (col. 4, lines 21-25), and for backing up the internal instructions stored in the internal memory (col. 3, lines 3-5 and 18-20);

a connecting unit (Fig. 1A, element 4B) for connection to the automation controller (Fig. 1A and col. 1, lines 66-68 and col. 2, lines 1-2) for transmitting and receiving the specific data between the internal memory of the automation controller and the storage unit (col. 2, lines 12-17 and col. 25, lines 4-5);

a switching unit (Fig. 7, element 804), connected to the connecting unit for switching transmission directions of the specific data between the storage unit and the internal memory of the automation controller (col. 2, lines 12-17 and col. 25, lines 42-48), and

a load unit, which contains a plurality of load components connecting to a work power supply for receiving the work power and generating a load (col. 30, lines 5-9).

11. As per claim 8, Galdun discloses an automation controller having an internal memory (Fig. 1A, element 2A and col. 2, lines 11-14) and a processing unit (Fig. 1B, element 5) for processing according to a internal instructions stored in the internal memory (col. 2, lines 3-5), and

an auxiliary memory device (Fig. 1A, element 2B and col. 2, lines 11-14) for the automatic controller, including:

a storage unit (Fig. 1A, element 4B), having at least one memory element (Fig. 1A, element 623B and col. 4, lines 64-68) for storing specific data including updates of, the internal instructions stored in the internal memory of the automation controller (col. 4, lines 21-25), and for backing up the internal instructions stored in the internal memory (col. 3, lines 3-5 and 18-20),

a connecting unit (Fig. 1A, element 4B) for connection to the automation controller (Fig. 1A and col. 1, lines 66-68 and col. 2, lines 1-2) for transmitting and receiving the specific data between the internal memory of the automation controller and the storage unit (col. 2, lines 12-17 and col. 25, lines 4-5),

a switching unit (Fig. 7, element 804), connected to the connecting unit for switching transmission directions of the specific data between the storage unit and the internal memory of the automation controller (col. 2, lines 12-17 and col. 25, lines 42-48), and

a load unit, which contains a plurality of load components connecting to a work power supply for receiving the work power and generating a load (col. 30, lines 5-9).

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12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Galdun in view of U.S. Patent Publication No.: 2003/0026440 (hereinafter Lazzeroni).

14. As per claim 2, Galdun does not expressly teach the storage unit further comprises of a power supply pin, which is connected to the work power supply for receiving the work power; a ground pin, which, along with the connecting unit, is connected to a ground end to form a ground loop; a pulse wave pin, which, along with the connecting unit, is connected to a data end for receiving and transmitting the specific data from the automation controller and; a data pin connected to a data end of the connecting unit for at least one of receiving and transmitting the specific data at least one of from and to the automation controller.

Lazzeroni teaches to a programmable controller chip (Fig. 6, element 300) that includes a power supply pin (Fig. 6, element 20), ground pin (Fig. 6, element 8), pulse wave pin (Fig. 6, element 9) and a data pin (Fig. 6, element 160).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the teaching of Galdun to include a programmable controller chip with a power supply pin, ground pin, pulse wave pin and data pin to program the controller to perform the instructions of the instruction set (pg. 2, par. [0017]).

15. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Galdun in view of U.S. Patent No.: 4,858,101 (Stewart hereinafter).

16. As per claim 5, Galdun does not expressly teach the connecting unit is a RS232 interface.

Stewart teaches to a connecting unit (Fig. 3, element 50) that provides output signals corresponding to the serial signal standard RS232 (col. 6, line 1 and col. 7, lines 1-2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Galdun to include a RS232 connecting unit, a standard in the field of communication (col. 6, line 68 and col. 7, lines 1-2) to allow a programmable controller to execute a machine operation program to enable a machine to carry out a plurality of programmed functions (col. 2, lines 36-38).

17. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Galdun in view of U.S. Patent No.: 6,269,444 (hereinafter Aguilar).

18. As per claim 6, Galdun does not expressly teach the load components further comprises of a first load component, which is a resistor for generating a load between the work voltage and the switching unit; a second load component, which is a resistor for generating a load between the work voltage and the pulse wave pin; and a third load component, which is a resistor for generating a load between the work voltage and the data pin.

Aguilar teaches to the well-known use of pull-up resistors (Fig. 1, elements R1 and R7) attached to various circuit points to maintain nodes at high levels in the absence of other levels being applied to the respective nodes.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the teaching of Galdun to include pull-up resistors for generating a load between the work voltage and the switching unit; between the work voltage and the pulse wave pin; and between the work voltage and the data pin for the purpose of enhancing the overall operation and reliability of Galdun.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited to further show the state of the art with respect to memory devices in general:

U.S. Patent No.: 5,963,448

U.S. Patent No.: 5,777,874

U.S. Patent No.: 6,952,742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Norton whose telephone number is 571-272-3694. The examiner can normally be reached on 8:00 a.m - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Anthony Knight', is positioned above the printed name.

Anthony Knight
Supervisory Patent Examiner
Art Unit 2121